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EXAMINER
WALSH, DANIEL I

ART UNIT	PAPER NUMBER
2876	

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Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 07-01)

	Applicati n N .		Applicant(s)
Office Action Summary	09/492,668		GARVER, ROY A.
	Examin r		Art Unit
	Daniel I Walsh		2876

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>5-30-02 (response)</u> .

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☐ Claim(s) _____ is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) <u>33-39</u> is/are allowed.

6)☒ Claim(s) <u>1-20 and 22-32</u> is/are rejected.

7)☒ Claim(s) <u>21</u> is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .

4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

1.   Receipt is acknowledged of the Response received on 30 May 2002.

Claim Objections

2.   Claim33 is objected to because of the following informalities:

Re claim 33, lines 7-8: Replace "via the first RF interface." with -- via the

first RF interface --.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3.   Claims 1, 2, 7-9, 11-17, 22-25, 27, and 31-32 are rejected under 35 U.S.C. 103(a)

as being unpatentable over Dumont (US 5,457,307) in view of Walter et al. (US

5,992,570).

Re claim 1, Dumont teaches a method for retail checkout comprising the steps of

establishing a communication link between a checkout station with a payment accepting

subsystem and a data storage unit in which a plurality of data records are stored, through

"Additionally, the two-way data transmission connector 60 functions to transmit all

pricing and identification data stored within the purchase memory means 59, and

corresponding all purchase items, to a data reception register 61 located with the

purchase confirmation station 76 at the store check out station. The data reception

register 61 includes a specially adapted handset receptacle 62 wherein a shopper's

handset is position upon checkout" (col 8, lines 60+). Dumont teaches the checkout

station with payment accepting subsystem through FIG. 7, which is interpreted to

include a checkout station which is well known in the art for having a payment

accepting subsystem (means for accepting payment based on totaled amounts of

purchase). Further, Dumont teaches that payment is received at the register and a

receipt is printed (col 9, lines 2+). Dumont teaches the data storage unit which stores

data records, through handset 20 and purchase memory means (col 6, lines 5+). Dumont

teaches that each of the plurality of data records corresponds to a respective one of a

plurality of identifiers that was read by a portable data reading unit before the

communication link was established as discussed above, where items for purchase are

scanned into the memory of the handset (by scanning the barcodes, interpreted as data

identifiers), and then at the time of checkout, communicated to the register through the

connector means as discussed above. It has been discussed above that the data records

are input from the data storage unit via the communication link established as taught

above. Dumont teaches determining a price total for a plurality of items corresponding

to the plurality of identifiers based on the plurality of data records inputted into the

inputting step through "Further, the purchase memory means adds all of the prices of the

purchase items entered therein so as to provide a total purchase amount displayed on the

display means, thereby providing a shopper with a constant update of how much they

are spending" (col 3, lines 1+). Dumont teaches accepting payment for the items based

on the price total as discussed above through the checkout 61, and such payment of

items is obvious and well known in the art of checkouts.

Re claim 2, Dumont teaches that the data storage unit (59) is contained in the

portable reading unit 20, as discussed above.

Re claim 8, it has been discussed above, re claim 1, that items are

selected/scanned by the portable reading unit 20, that the unit is linked to the checkout

station after the items have been selected, and that after the data is transferred to the

register, payment is made for the items.

Re claims 9 and 13, it has been taught above that the data is transferred into the

checkout station from the reading unit, and that such transfer occurs through placing the

terminal in the handset receptacle to communicate the data, where the receptacle is

broadly interpreted to include a cradle. Though Dumont does not specifically use the

term "cradle", the handset receptacle 62, as shown in FIG. 7, is interpreted as a cradle

type unit to accept the terminal and hold it for data transfer. Further, it would have been

obvious to an artisan of ordinary skill in the art to specifically use a cradle, as a matter of

design variation, since it appears the invention would perform equally well the

receptacle 62 as taught by Dumont, as it serves the same function to accept the terminal

for transfer of data.

Re claim 11, it has been discussed above that the items bear barcode symbols that

are read by the portable unit.

Re claim 14, it is discussed above that data is obtained when items are scanned on the store floor, and that the linking of data occurs at the register itself, and therefore the processes occur at different locations.

Re claim 15, a separation of twenty feet would have been obvious to an artisan of ordinary skill in the art, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. Furthermore, it would have been obvious to have a twenty-foot separation to separate the locations in order to reduce the amount of customer traffic, to conform to store sizes/layouts, and to not negatively effect the normal traffic of those perusing the store. Such a separation between register checkouts and the store aisles are well known and seen through conventional grocery stores, and thus motivation for separation is obviated.

Dumont fails to teach that the checkout station is a customer operated automated payment accepting subsystem.

Walter et al. Teaches such a self-checkout station with a customer operated automated payment-accepting subsystem through FIG. 1.

Further, re claims 7, 12, and 24 Walter et al. teaches a credit card/debit transaction device 50 and cash acceptor 22. Further, it is well known that self-checkout systems such as those used in grocery stores (Giant) include card readers and currency acceptors.

Re claim 16, it has been discussed above that there is a data output port that outputs a plurality of data records from a portable data storage unit through transmission connector 60 which transmits data through handset receptacle 62, as discussed above. Though Dumont is silent to an input port existing on the checkout apparatus, it is understood that in order for the connector to transmit data, a connector/input port must

exist to receive that data. Walter et al. teaches a non-portable customer operated

automated payment acceptor (discussed above) that generates an output signal based on

the amount of tendered payment through "If the customer elects to pay by cash (block

268 of FIG. 216), the customer is instructed by a message on the screen 38 to insert into

the input slot 134 of the cash acceptor module 22 a note or notes to a value equal to or

greater than the total amount payable as shown in step 270. When the customer inserts a

note into the input slot 134 of the note acceptor 22, the apparatus operates in accordance

with a program, which is depicted in the flowchart of FIG. 19. As shown in step 960 of

FIG. 19, the note acceptor 22 reads the amount of the inserted bill sends a signal to the

processor unit 60 indicative of the amount of the bill. The processor unit 60 makes a

determination, as shown in step 964, as to whether the bill is acceptable. If the bill is

determined to be unacceptable in step 964, then the program proceeds to step 966 in

which the processor sends a signal to the cash acceptor to return the bill to the customer.

The processor unit 60 also displays on the screen 38 the available payment methods as

shown in step 968. (49) If the bill is determined to be acceptable in step 964, then the

program proceeds to step 970 in which the processor unit 60 deducts the amount of the

bill from the total transaction amount. If the total transaction amount after deducting the

bill amount is still positive, as determined in step 972, then the customer needs to insert

more cash and the program returns to the start to receive another bill. If the total

transaction amount after deducting the bill amount is not positive, as determined in step

972, then the program proceeds to step 974. (50) In step 974, a determination is made

as to whether the total transaction amount after deducting the bill amount is equal to

zero. If the determination in step 974 is affirmative, then the customer has paid a cash

amount equal to the total transaction amount and the program ends. If the determination

in step 974 is negative, then the customer is owed some change and the program

proceeds to step 976. If change is required, then a signal is sent by the processor unit 60

to the coin dispenser module 24 and/or to the cash dispenser 44 causing the appropriate

amount of change to be dispensed for collection by the customer. The finalization

procedure (block 84 of FIG. 3) is now completed. (51) When the finalization procedure

in block 84 of FIG. 3 is completed, the processor unit 60 sends a signal to the security

gate 12 so as to bring about opening of the gate 12. The apparatus is then reset as

previously described (block 86 of FIG. 3) and returned to its idle condition (block 74 of

FIG. 3). At the end of a finalization procedure in block 84 of FIG. 3, the customer

takes any cash that is due to him or her by way of change or cash back. As previously

described, this cash is presented to the customer through the note dispenser slot 48 of the

ATM 20 and/or at the coin receptacle 61 of the coin dispenser 24. The customer also

takes the receipt presented through the receipt slot 58. Finally, the customer also

removes the bag 32' containing the purchased items from the rails 35, places the 32' bag

in the cart 72, and proceeds through the opened security gate 12" (col 11, lines 38+). It

is understood that an output signal is generated as discussed above. Further, indication

when a tendered payment is sufficient to pay the price is discussed above through when

change is given, or when the gates open. Walter et al. also teaches an electronic

controller that determines a price for the inputted records through "An electronic

controller connected to the customer operated device and arranged to determine the

price of each item identified by the customer operated device (abstract). Though the

controller of Walter et al. determines prices for items input by scanning, and not by the

data input port, at the time the invention it was well known in the art to use controllers

for controlling payment and determining means. Therefore it would have been obvious

to use a controller for determining price input from the data input port, such as the one

taught by Walter et al., for the same functional reasons as those taught by Walter et al.,

since controllers were well known in the art for performing such functions.

Re claim 17, it has been taught above that the data storage unit is portable.

Re claim 22, it has been discussed above that indication is generated based on the

amount of cash received or credit card authorization, since the gates open when payment

is made in full.

Re claim 23, the limitations have been discussed above re claim 13, where it is

understood that docking the terminal on the handset receptacle 62 is functionally

equivalent to docking the unit on a cradle, since both are to establish a connection to

transfer data.

Re claim 25, the limitations have been discussed above, re claim 16. Further, it is

understood that transmission connector 60 is interpreted as an output port, and handset

receptacle functions as an input port since it receives information from the connector 60,

functionally equivalent to an output port. It has already been discussed above (Walter et

al.) that a self-checkout station has a customer operated automated payment accepting

subsystem. Further, it is understood that the terminal identifies items using the reader

(scanning the barcodes) and stores the information (memory means 59)to send to the

self-checkout for customer payment.

Re claim 27, it is understood that barcodes are interpreted as optical characters.

Re claims 31-32, these limitations have been discussed above, re claim7, where such a card processing unit is interpreted to include a point of sale system, as is well known in the art and common.

At the time the invention was made, it would have been obvious to an artisan of ordinary skill in the art to combine the teachings of Dumont with those of Walter et al.

One would have been motivated to do this in order to have a more efficient means of shopping by reducing the amount of time needed to stand in line while also reducing the amount of employees needed for checking out contributing to a more enjoyable and customizable/personal shopping experience can be had.

4.   Claims 3-6, 18, 19, 26, and 28-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dumont as modified by Walter et al., as applied to claim 1 above, and further in view of Ruppert et al. (US 5,640,002).

The teachings of Dumont and Walter et al. have been discussed above.

Dumont and Walter et al. fail to specifically teach data transfer via an RF interface/reader (re claims 3, 6, 19, and 28), that the step of determining a price total comprises the steps of outputting signals to a POS controller in a format that mimics signals outputted by conventional POS scanning terminals after performing a checkout scan for each of the plurality of items and inputting price information generated by the POS controller in response to the signals outputted in the outputting step (re claim 4), that the portable data reading unit comprises a barcode reader selected from a group consisting of a flying spot scanner, an optical imaging reader, and a wand reader (re claims 5, 18, and 26), and a price lookup table re claim 30. Re claims 3, 6, 19, 28, and 29, Dumont and Walter et al. fails to teach RF interfacing/reading.

Re claims 3, 6, 19, 28, and 29, Ruppert et al. teaches the use of an RF interface to

receive data through "A portable barcode and RF ID tag reader that gathers information

about items to be purchased etc. by reading barcodes or RF ID tags". It is understood

that an RF interface exists in such a reader, in order to process the RF ID tag

information.

Re claim 4, Ruppert et al. teaches outputting signals to a POS controller in a

format that mimics conventional POS scanning terminals through "After all desired

items have been scanned, the stored descriptive information and price information are

downloaded from the personal bar code scanner to the store computer either through a

hardwired connection between the communication port of the personal scanner and a

communication port of the store computer or through an infrared transceiver local area

network interface" (col 2, lines 41-47) and inputting price information has been

discussed above in reference to credit card payments.

Though Ruppert et al. is silent to the specific use of a controller for determining a

price total, at the time the invention was made, it would have been obvious to an artisan

of ordinary skill in the art to use a controller.

One would have been motivated to use a controller to have a reliable, electronic

mean of ensuring the accuracy of the signals and their processing. Further, it is well

known in the art to use controllers for electrical data processing. The outputting of

signals to a POS controller that "mimics" the conventional POS scanning terminal output

signals is understood to mean the conventional bar code scanning and output signals used

for price determination is the same as that recited in the claim. Therefore, it is understood

that the inputting and price determination means as set forth in the claims is functionally

the same as that taught by a conventional POS terminal (i.e. Walter et al.). Therefore, in view of the teachings of Ruppert et al. as modified by Dumont and Walter et al, the price determining means as set forth in claim 4 would have been obvious and conventional to use, to one of ordinary skill in the art at the time the invention was made.

Re claims 5, 18, and 26, Ruppert et al. teaches the limitations of the claims through "In alternative embodiments, the bar code scanner can be a laser diode based scanner, LED contact scanner, optical or magnetic scanner or character reader" (col 6, lines 61-64). One would have been motivated to use such reading units to have a more versatile system with the ability to handle various forms of indicia/encoded data.

Re claim 29 Ruppert et al. teaches first and second RF interfaces to communicate with each other through "Antenna 304 is coupled to an RF module (not shown) which is used to download data to a host computer coupled to a local area network with an RF link or RF receiver with a digital interface to the host computer. The downloaded data can be scanned data from barcodes or data read from magnetic stripe cards, PC Cards or smart cards inserted into the PCMCIA slot. The antenna 304 can also be used to upload data from a local area network or RF transmitter coupled to a host computer" (col 17, lines 20-29). Here, the host computer is interpreted to include the base station.

At the time the invention was made, it would have been obvious to an artisan of ordinary skill in the art to combine the teachings of Ruppert et al. with those of Dumont.

One would have been motivated to do this in order to have an alternative way to transmit data that is well known in the art.

Re claim 30, Ruppert et al. teaches a price list where prices are determined, through "Other routines retrieve the current price list of the store to be shopped. This

may be done by modem in some embodiments, or by physical connection to the store

computer in other embodiments through the communication port (col 2, lines 11-16).

Though Ruppert teaches that the store computer holds the price list and therefore

fails to specifically teach or fairly suggest that the checkout system holds the price list, it

would have been obvious to an artisan of ordinary skill in the art at the time of the

invention to put the price list on the checkout system as a matter of design choice, since

it appears that the system would function equally well with a price list on the computer

or the checkout system, just as long as the price information is communicated. Further,

the applicant has not disclosed that the price list on the checkout system solves any

stated problem or is for any particular, functionally novel purpose, it is seen as a matter

of design choice.

5.   Claims 10 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Dumont, as modified by Walter et al., as applied to claim 1 above, and further in view of

Swartz et al. (US 6,092,725).

The teachings of Dumont and Walter et al. have been discussed above.

Dumont and Walter et al. fail to teach that data is transferred to a self-checkout

station from a base station that communicates with the portable reading unit.

Swartz et al. teaches this limitation through, FIG. 3, (col 5, lines 15+), and (col 8,

lines 6-34 and col 10, lines 7+) where it is taught that the scanning terminal 100

interfaces with the scanner dispenser 2 which interfaces with the host computer 4, which

interfaces with POS terminal 6 for data communications of the desired purchase items. It

is understood that these are two different locations, and that the terminal transfers data to

a host computer, which interfaces with the checking, there interpreted as a base station..

At the time the invention was made, it would have been obvious to an artisan of ordinary skill in the art to combine the teachings of Ruppert et al., Dumont, Walter et al. and Swartz et al.

One would have been motivated to do this to have a more efficient way to reduce checkout time.

Response to Arguments

6.   Applicant's arguments filed 30 May 2002 have been fully considered but they are not persuasive.

Re the applicants' arguments that a division of tasks and necessary linking is not present in the prior art, the Examiner respectfully disagrees. At the time the invention was made, it would have been obvious to link the portable reading unit to a automated payment accepting subsystem of a self-checkout in the interest of increasing the efficiency of the shopping experience, especially since the prior art teaches linking a reading unit to a register/checkout it would have been obvious that the checkout be a self-checkout, since self checkouts are well known in the art as a means to increase efficiency. Consequently, the examiner maintains that the linking of the terminal to the checkout station, and the subsequent receiving of data, is obviated by the prior art.

Allowable Subject Matter

7.   Claims 33-39 are allowed.

8.   Claim 21 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9.   The following is an examiner's statement of reasons for allowance: The prior art of record fails to teach:

i)   A self-checkout station comprising an interface with a second controller, wherein the first controller determines the price for the plurality of items by outputting signals to the second controller via the interface and inputting price information from the second controller via the interface (claim 21)

ii)   A customer-operated checkout system fro items bearing identifiers, the system comprising: a portable terminal including a data reader and a first RF interface, wherein the portable terminal identifies selected items using the data reader, and transmits information about the selected items via the first RF interface; a base station including a second RF interface, a memory, and a data output port, wherein the base station receives the information about the selected items form the portable terminal via the second RF interface, stores the information in the memory, and outputs the information via the data output port; and a self-checkout station including a data input port and a customer-operated automated payment-accepting subsystem, wherein the self-checkout station receives the stored information from the base station data output port via the data input port, and accepts payment from the customer for the selected items using the payment-accepting subsystem.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

10.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Matsumori (US 6,179,206) and Swartz et al. (US 6,243,447).

11.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Daniel Walsh** whose telephone number is **(703)305-1001**. The examiner can normally be reached between the hours of 7:30am to 4:00pm Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee can be reached on (703) 305-3503. The fax phone numbers for this Group is (703) 308-7722, (703) 308-7724, or (703) 308-7382.

Communications via Internet e-mail regarding this application, other than those under 35 US.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to **[daniel.walsh@uspto.gov]**.

All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set for the in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the Group receptionist whose telephone number is (703)

308-0956.

THIEN M. LE
PRIMARY EXAMINER

DW

8/13/02